

WHAT IS CLAIMED IS:

1. A system for interleaving MPEG video data with DOCSIS data comprising:
  - a MPEG video source that produces a MPEG video data stream at a clock rate determined by said MPEG video source, wherein said MPEG video data stream is comprised of MPEG video data packets and null data packets;
  - a media access control device that receives said MPEG video data stream, replaces each of said null data packets with a DOCSIS data frame to produce an interleaved MPEG data stream, and transmits said interleaved MPEG data stream at said clock rate determined by said MPEG video source.
2. The system of claim 1, further comprising a downstream modulator that receives said interleaved MPEG data stream at said clock rate determined by said MPEG video source.
3. The system of claim 1, wherein said MPEG video source provides said MPEG video data stream at a clock rate less than 13.5 megabytes per second.
4. A system for interleaving MPEG video data with DOCSIS data comprising:
  - a MPEG video source that produces a MPEG video data stream comprised of MPEG video data packets and a number of null data packets, said number of null data packets determining how much DOCSIS data can be interleaved with said MPEG video data packets;
  - a media access control device that receives said MPEG video data stream and replaces each of said null data packets with a DOCSIS data frame to produce an interleaved MPEG data stream.

5. A system for interleaving MPEG video data with DOCSIS data comprising:

a MPEG video source that produces a MPEG video data stream at a clock rate determined by said MPEG video source, wherein said MPEG video data stream is comprised of MPEG video data packets and null data packets and further wherein the number of said null data packets determines how much DOCSIS data can be interleaved with said MPEG video data packets;

a media access control device that receives said MPEG video data stream, replaces each of said null data packets with a DOCSIS data frame to produce an interleaved MPEG data stream, and transmits said interleaved MPEG data stream at said clock rate determined by said MPEG video source.

6. A method for interleaving MPEG video data with DOCSIS data, comprising the steps of:

- (1) receiving a MPEG video data stream;
- (2) detecting one or more null packets within a data portion of said MPEG video data stream; and
- (3) replacing each of said one or more null packets with a DOCSIS data frame to produce an interleaved MPEG data stream, wherein said interleaved MPEG data stream comprises MPEG video data and DOCSIS data frames.

7. The method of claim 6, wherein a MPEG video source determines a rate at which said MPEG video data stream is received in said receiving step (1).

8. The method of claim 7, wherein said rate at which said MPEG video data stream is received is less than 13.5 megabytes per second.

9. The method of claim 7, further comprising a step (4) providing said interleaved MPEG data stream to a downstream modulator.

10. The method of claim 9, wherein a rate at which said interleaved MPEG data stream is provided to said downstream modulator is equal to said rate at which said MPEG video data stream is received in said receiving step (a).